

## REMARKS

### Rejection under 35 U.S.C. §103(a)

Claims 1-7 were again rejected under 35 U.S.C. § 103(a) as obvious over Obrecht, et al. (U.S. Patent No. 6,127,488) alone or in view of Heiliger, et al. (CA 2,298,498). Applicants respectfully traverse this ground of rejection.

Applicants herein resubmit and incorporate their comments filed on September 16, 2003. As previously argued, Applicants submit that the teaching to make the claimed combination and the reasonable expectation of the success of the invention is found in the Applicants disclosure, not in the cited references.

Applicants submit neither reference discloses the use of the claimed phosphoryl polysulfides in rubber compositions comprising rubber gels with the expectation to produce rubber compounds having improved physical properties.

As previously submitted by Applicants, Obrecht, et al. discloses rubber mixtures of SBR/butadiene rubber gel and double bond containing rubber. Obrecht, et al. does not teach or suggest the use of phosphoryl polysulfides as claimed.

Also, as previously submitted by Applicants, Heiliger, et al. discloses a process for the production of phosphoryl polysulfides as claimed. According to Heiliger, et al. the proposed polysulfides are useful as sulfur donors for the vulcanization of natural and synthetic rubbers, they are not taught or suggested to be useable in compositions comprising a rubber and a rubber gel.


Further, Applicants submit there is no motivation for one skilled in the art to combine the compounds of Heiliger, et al. with Obrecht, et al. with the expectation that the phosphoryl polysulfides would improve the strengthening effect of rubber compounds which include rubber gels. Applicants respectfully remind the Examiner that "[c]are must be taken to avoid hindsight reconstruction by using 'the patent in suit as a guide through the maze of prior art references, combining the right references in the right way so as to achieve the result of the claims in suit.'" *Grain Processing Corp. v. American Maize-Prods. Co.*, 840 F.2d 902, 907, 5 U.S.P.Q.2d 1788, 1792 (Fed. Cir. 1988).

The present invention relates to rubber compounds based on rubber particles and phosphoryl polysulfides, as discussed in the disclosure the addition of polysulfides improves the strengthening effect of rubber particles, in particular the product  $S_{300 \times D}$  of the modulus at 300% elongation ( $S_{300}$ ) and the elongation at break without lowering the resilience of the vulcanizates produced. As further demonstrated by the attached Declaration of Dr. Frueh, compounds containing phosphoryl polysulfides encompassed by the formula of the present invention used alone improve the properties of the vulcanized rubber compositions. Applicants submit the claimed invention is not suggest or taught by the cited art and without the Applicants disclosure, one skilled in the art would not have been motivated to combine the cited references.

Accordingly, Applicants request withdrawal of this ground of rejection.

Respectfully submitted,

Bayer Polymers LLC  
100 Bayer Road  
Pittsburgh, Pennsylvania 15205-9741  
(412) 777-3879  
FACSIMILE PHONE NUMBER:  
(412) 777-3902  
lo/SENG/jrs213

By   
Jennifer R. Seng  
Attorney for Applicants  
Reg. No. 45,851